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2100 Pennsylvania Avenue NW
Washington, DC 20037

EXAMINER

COLE, ELIZABETH M

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The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MITSUNORI NODONO, RYUMA KURODA,
TAKEO KITAYAMA, SATOSHI HANADA,
and SHIGEYOSHI MATSUBARA

Appeal 2007-4491
Application 09/635,141
Technology Center 1700

Decided: February 21, 2008

Before EDWARD C. KIMLIN, BRADLEY R. GARRIS, and
CHARLES F. WARREN, *Administrative Patent Judges*.

GARRIS, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134 from the Examiner's decision rejecting claims 6-8, 10, 11-18, 28-31, and 48. The Examiner has dismissed the appeal as to claim 10 (Communication, mailed April 14, 2006, 2) due to Appellants' failure to respond to the new ground of rejection made

against this claim in the Answer. Therefore, only claims 6-8, 11-18, 28-31, and 48 remain on appeal. We have jurisdiction under 35 U.S.C. § 6.

We AFFIRM-IN-PART

Appellants claim a method for producing a multilayer polyolefin foamed sheet which comprises laminating a produced multilayer polyolefin foamed sheet to itself or laminating produced multilayer polyolefin foamed sheets to themselves (Claim 6) and which further comprises the step wherein the multilayer polyolefin foamed sheet is folded up, superimposed and laminated together in the previously mentioned laminating step (Claim 7).

Representative claims 6 and 7 read as follows:

6. A method for producing a multilayer polyolefin foamed sheet comprising at least one polyolefin foamed layer and at least one polyolefin non-foamed layer, wherein method uses a producing apparatus comprising at least one first extruder for extruding a material for forming a polyolefin foamed layer wherein the first extruder is equipped with a foaming agent-supplying device for supplying a foaming agent to a cylinder, at least one second extruder for extruding a material for forming a polyolefin non-foamed layer and at least one extrusion die for co-extruding the material for forming a polyolefin foamed layer and the material for forming a polyolefin non-foamed layer therethrough to form the multilayer polyolefin formed sheet, the method comprising:

a melt kneading step in which, in the first extruder, a resin material for forming a polyolefin foamed layer is melted and the melted resin material for forming a polyolefin foamed layer and a foaming agent supplied from the foaming agent-supplying device are mixed to form the material for forming a polyolefin foamed layer;

a melting step in which the material for forming a polyolefin non-foamed layer is melted in the second extruder; and

a co-extruding step in which the material for forming a polyolefin foamed layer and the material for forming a polyolefin non-foamed layer in their melted states are co-extruded into atmospheric pressure through the extrusion die and the extruded material for forming a polyolefin foamed layer is foamed to form the multilayer polyolefin foamed sheet, and

further comprising a laminating step for laminating at least one multilayer polyolefin foamed sheet produced, wherein the laminating steps [sic, step] comprises laminating a produced multilayer polyolefin foamed sheet to itself, or laminating produced multilayer polyolefin foamed sheets to themselves.

7. The method for producing a multilayer polyolefin foamed sheet according to claim 6, where the multilayer polyolefin foamed sheet co-extruded is folded up, superimposed and laminated together in the laminating step.

The references set forth below are relied upon by the Examiner as evidence of obviousness:

Dynamit Nobel ¹	DE 2,532,406	Apr. 13, 1978
Kelch	US 5,000,992	Mar. 19, 1991
Park	US 5,180,751	Jan. 19, 1993

Claims 6-8, 12, 28-31, and 48 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Park in view of DE ‘406; and claims 11 and 13-18

¹ During prosecution, both Appellants and the Examiner have relied on British Patent Specification 1 514 369 (published June 14, 1978) as the English language equivalent to DE 2,532,406. We shall do likewise.

are correspondingly rejected over these references and further in view of Kelch.

For the reasons set forth below, we will sustain each of the above noted rejections except for the rejection of claim 7.

As an initial matter, we clarify that the Examiner relies on DE ‘406 only for the claimed feature wherein the multilayer polyolefin foamed sheet is “folded up, superimposed and laminated together in the laminating step” (Claim 7) (Answer, paragraph bridging 3-4, second paragraph at 6). We also clarify that Appellants have identified only claim 7, which depends from independent claim 6, as requiring this claimed feature (Br. 9 last paragraph, 12 penultimate paragraph). Accordingly, in assessing the propriety of the Examiner’s proposed combination of Park and DE ‘406, we will focus on dependent claim 7 only.

Appellants argue that Park contains no teaching or suggestion of the claim 6 step “laminating a produced multilayer polyolefin foam sheet to itself, or laminating produced multilayer polyolefin foamed sheets to themselves” (Br. 7). Appellants are incorrect. We agree fully with the Examiner’s finding (Answer 6) that Park expressly discloses such a laminating step (col. 9, ll. 40-56).

Appellants also argue that Park contains no teaching or suggestion of the gas barrier feature recited in claim 12 (Br. 12-13) as well as separately rejected claims 11 and 13-18 (Br. 15). We cannot agree. Again, we share the Examiner’s finding (Answer 7-9) that Park discloses the gas barrier

feature under consideration (paragraph bridging cols. 4-5; col. 8, ll. 28-64; col. 9, ll. 40-56).

With the exception of claim 7 which is discussed below, the appealed claims are contested by Appellants only with respect to the claimed features unsuccessfully argued above. Therefore, we sustain the Examiner's § 103 rejection of claims 6, 8, 12, 28-31, and 48 as being unpatentable over Park in view of DE '406 as well as claims 11 and 13-18 as being unpatentable over these references and further in view of Kelch.

Concerning claim 7, the Examiner concedes that the feature thereof is not taught by Park but concludes that "it would have been obvious to have folded the foams of Parks [sic, Park] rather than cutting the layers and then bonding them" because DE'406 "teaches that this is an alternative and known method of making a bonded foam material and because this would avoid the step of cutting the foam, thereby reducing cost by simplifying the process" (Answer 4). The Examiner's obviousness conclusion is not well taken.

Appellants have correctly explained, and the Examiner has not disputed, that the teaching in DE '406 of folding and bonding or laminating foam material relates to the manufacture of foam tubes for insulating, for example, hot and cold water pipes (see page 1 of English language equivalent British Patent Specification 1 514 369). That is, the only reason an artisan would have practiced the folding and bonding or laminating steps of DE '406 would be for the purpose of making foam tube for insulating purposes. Such insulating foam tubes are not applicable to the teachings of

Park. This is because the Park reference is directed to using polypropylene foam sheets for the manufacture of trays, plates, containers and other articles used in food service (col. 4, ll. 8-12). For these reasons, we agree with Appellants (Br. 11-12) that the applied prior art contains no teaching or suggestion of combining Park and DE '406 in the manner proposed by the Examiner.

It follows that we cannot sustain the § 103 rejection of claim 7 as being unpatentable over Park in view of DE '406.

In summary, we have reversed the Examiner's rejection of claim 7 but have affirmed the Examiner's rejections of the remaining the claims on appeal.

The decision of the Examiner is Affirmed-In-Part.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED-IN-PART

PL Initials:
sld

Appeal 2007-4491
Application 09/635,141

SUGHRUE, MION, ZINN, MACPEAK & SEAS
2100 PENNSYLVANIA AVENUE, NW
WASHINGTON, DC 20037